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PORTABLE TELEPHONE WITH SPEAKER PROJECTED IN FRONT UPPER OBLIQUE DIRECTION

BACKGROUND

1. Field of the Invention

The present invention relates to portable telephones and, particularly to a portable telephone having a movable portion.

2. Background of the Invention

A wide variety of radio communication system devices have hitherto been proposed to make a mobile communication. Radio communication system devices, such as mobile telephones, personal radio transceivers and portable telephones, in particular, of a stationary type, a shoulder type or a handheld type are now commercially available on the market.

FIG. 1 shows an example of a portable telephone that is now in general use. While personal transceivers make a communication by using the 90 MHz band, mobile telephones and portable telephones make a communication by using the 800 MHz band making antennas of the mobile telephone and the portable telephone relatively short in length.

In FIG. 1, reference numeral 1 generally depicts a portable telephone which is of a handheld type cordless telephone. As shown in FIG. 1, this portable telephone 1 includes an outer casing 2 of a rectangular box configuration made of synthetic resin. The outer casing 2 includes a front panel 2a, and the front panel 2a has a receiver or speaker 3 provided on its upper end face so as to be housed in the outer casing 2. The telephone 1 also includes an operation key group 4 disposed at its substantially central position. The operation key group 4 includes a plurality of operation keys, such as ten keys or the like. The telephone 1 includes a transmitter (microphone) 5 provided on its lower surface side so as to be housed in the outer casing 2.

The telephone 1 includes an antenna 6 upwardly extended from the upper surface portion of the outer casing 2. Some portable telephones include a liquid crystal display (LCD) unit provided on the front panel 2a of the outer casing 2 in order to display information entered by the user, though not shown.

The portable telephone 1 thus arranged includes the receiver 3 and the transmitter 5 both of which are housed within the outer casing 2. Therefore, the outer casing 2 has to be long enough to the extent that it can substantially cover the length between the user's ears and mouth. As a result, the whole portable telephone 1 becomes too large in size to be put into user's suitable carrying means, such as a purse or the like.

To solve the above-mentioned problem, proposed is a portable telephone which includes a telephone body composed of two telephone body portions joined by a hinge. These two telephone body portions are rotated to open when this portable telephone is in use.

Furthermore, there is commercially available a portable telephone having a miniaturized telephone body, i.e., a short-length outer casing. When this portable telephone is in use, a part of the outer casing can be slid upwardly along the longitudinal direction of the outer casing such that the length between the receiver and the transmitter housed in the lower portion of the outer casing can substantially cover the length between the user's ears and mouth.

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However, as the outer casing of the telephone body is reduced in length, it is unavoidable that the antenna that is provided on the telephone body is placed closer to the user's body when the portable telephone is in use. When a telephone call is made, if the antenna of the portable telephone is placed too close to the user's body, then interference is exerted upon a radio radiation characteristic and a telephone call is disturbed by noise accordingly.

SUMMARY OF THE INVENTION

It is, therefore, an object of the present invention to provide a portable telephone in which the above-mentioned problems can be solved.

According to the present invention, provided is a portable telephone which includes a telephone body, a receiver and a supporting mechanism. The telephone body includes a transmitter and an antenna attached thereto. The supporting mechanism includes the receiver attached thereto and supports the receiver such that the receiver can be projected from the telephone body.

According to the present invention, provided is a portable telephone which includes a telephone body, a receiver and a supporting mechanism. The telephone body includes a transmitter attached to one end thereof and an antenna attached to the other end thereof. The receiver is disposed on the antenna side of the telephone body. The supporting mechanism includes the receiver attached thereto and supports the receiver such that the receiver is projected from the telephone body not only in the direction away from the antenna but also with a predetermined angle with respect to the longitudinal direction of the telephone body.

According to the present invention, provided is a portable telephone which includes a telephone body, a receiver unit, a supporting mechanism and a display unit. The telephone body includes a transmitter attached to one end thereof and an antenna attached to the other end thereof. The telephone body has at least one aperture defined on one side surface thereof so as to communicate with the transmitter. The receiver unit includes a receiver attached thereto and is provided on the other end side of the telephone body. The supporting mechanism supports the receiver of the receiver unit such that the receiver is projected from the telephone body not only in the direction away from the antenna but also with a predetermined angle with respect to the longitudinal direction of the telephone body. The display unit is placed on one side of the telephone body. At least a part of the display unit is covered with the receiver unit when the portable telephone is in the telephone call standby mode.

According to the present invention, since the receiver portion is projected from the telephone body when a telephone call is made, the user can reliably contact the receiver portion with the auricle when the user puts the mouth close to the transmitter of the telephone body. Thus, it is possible to improve an acoustic characteristic. Further, since the receiver unit is projected away from the telephone body, the antenna of the telephone becomes distant from the user's body. Thus, it is possible to improve a radio radiation characteristic. Therefore, the user can make an improved telephone communication.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view showing an outer face of a commercially available portable telephone;